

## INTERNATIONAL SEARCH REPORT

International Publication No.

PCT/EP 03/03537

10/509991

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F15B11/16

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F15B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	EP 1 231 386 A (HITACHI CONSTRUCTION MACHINERY) 14 August 2002 (2002-08-14) paragraphs '0039!', '0040!	1
A	DE 197 15 021 A (REXROTH MANNESMANN GMBH) 15 October 1998 (1998-10-15) cited in the application figure 1	1



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

19 August 2003

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/03537

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1231386	A	14-08-2002	JP 2001323902 A	22-11-2001
			EP 1231386 A1	14-08-2002
			WO 0188383 A1	22-11-2001
			US 2003097836 A1	29-05-2003
DE 19715021	A	15-10-1998	DE 19715021 A1	15-10-1998